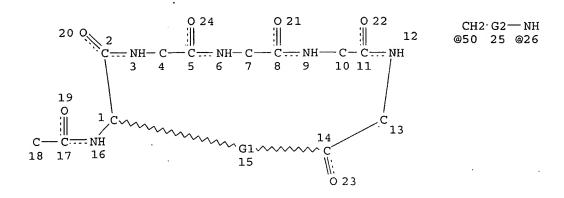
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               E E3+AKK
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               E E2+ALL
L4
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L5
             6 SEA ABB=ON PLU=ON L4 AND L3
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L1

STR



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DEFAULT ECLEVEL IS LIMITED

STEREO ATTRIBUTES: NONE 44 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 34329 ITERATIONS SEARCH TIME: 00.00.01

44 ANSWERS

=> fil caplus FILE 'CAPLUS' ENTERED AT 12:00:55 ON 15 JUN 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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L2

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FILE COVERS 1907 - 15 Jun 2006 VOL 144 ISS 25 FILE LAST UPDATED: 14 Jun 2006 (20060614/ED)

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http://www.cas.org/infopolicy.html
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L13 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:700131 CAPLUS

DOCUMENT NUMBER:

143:278782

TITLE:

Increased potency of a novel complement factor 5a

receptor antagonist in a rat model of

inflammatory bowel disease

AUTHOR(S):

Woodruff, Trent M.; Pollitt, Sandra; Proctor, Lavinia M.; Stocks, Shelli Z.; Manthey, Helga D.; Williams, Hua M.; Mahadevan, Indumathy B.; Shiels, Ian A.;

Taylor, Stephen M.

CORPORATE SOURCE:

Promics Pty. Ltd., The University of Queensland,

Brisbane, Australia

SOURCE:

Journal of Pharmacology and Experimental Therapeutics

(2005), 314(2), 811-817

CODEN: JPETAB; ISSN: 0022-3565

PUBLISHER:

American Society for Pharmacology and Experimental

Therapeutics

DOCUMENT TYPE: LANGUAGE: Journal English

ED Entered STN: 08 Aug 2005.

We have previously shown that complement factor 5a (C5a) plays a role in AB the pathogenesis of 2,4,6-trinitrobenzene sulfonic acid (TNBS)-induced colitis in rats by using the selective, orally active C5a antagonist This study tested the efficacy and potency of a new AcF-[OP(D-Cha)WR]. C5a antagonist, hydrocinnamate (HC)-[OP(D-Cha)WR], which has limited intestinal lumenal metabolism, in this model of colitis. Analogs of AcF-[OP(D-Cha)WR] were examined for their susceptibility to alimentary metabolism in the rat using intestinal mucosal washings. One metabolically stable analog, HC-[OP(D-Cha)WR], was then evaluated pharmacokinetically and investigated at a range of doses (0.03-10 mg/kg/day p.o.) in the 8-day rat TNBS-colitis model, against the comparator drug AcF-[OP(D-Cha)WR]. Using various amino acid substitutions, it was determined that the AcF moiety of AcF-[OP(D-Cha)WR] was responsible for the metabolic instability of the compound in intestinal mucosal washings. The analog HC-[OP(D-Cha)WR], equiactive in vitro to AcF-[OP(D-Cha)WR], was resistant to intestinal metabolism, but it displayed similar oral bioavailability to AcF-[OP(D-Cha)WR]. However, in the rat TNBS-colitis model, HC-[OP(D-Cha)WR] was effective at reducing mortality, colon edema, colon macroscopic scores, and increasing food consumption and body wts., at 10to 30-fold lower oral doses than AcF-[OP(D-Cha)WR]. These studies suggest that resistance to intestinal metabolism by HC-[OP(D-Cha)WR] may result in increased local concns. of the drug in the colon, thus affording efficacy with markedly lower oral doses than AcF-[OP(D-Cha)WR] against TNBS-colitis. This large increase in potency and high efficacy of this compound makes it a potential candidate for clin. development against intestinal diseases such as inflammatory bowel disease.

CC 1-7 (Pharmacology)

IT Complement receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(C5a, antagonists; increased potency of complement factor 5a receptor antagonist in inflammatory bowel disease)

IT Inflammation

Intestine, disease

(colitis; increased potency of complement factor 5a receptor

antagonist in inflammatory bowel disease)

IT Edema

(colon; increased potency of complement factor 5a receptor antagonist in inflammatory bowel disease)

IT Anti-inflammatory agents

Body weight

Feeding

Gastrointestinal agents

Human

(increased potency of complement factor 5a receptor antagonist in inflammatory bowel disease)

IT Intestine, disease

(inflammatory; increased potency of complement factor 5a receptor antagonist in inflammatory bowel disease)

IT 219639-88-0 514814-49-4 514814-50-7 514814-51-8 514815-00-0 864238-13-1 864238-14-2 **864238-15-3** 864238-16-4

864238-13-1 864238-14-2 **864238-15-3** 864238-1 864238-17-5 864238-18-6 864238-19-7

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)

(increased potency of complement factor 5a receptor antagonist in inflammatory bowel disease)

IT 864238-15-3

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(increased potency of complement factor 5a receptor antagonist in inflammatory bowel disease)

RN 864238-15-3 CAPLUS

CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-3-(9-anthracenyl)-L-alanyl-3-cyclohexyl-D-alanyl-L-tryptophyl-, (6→2)-lactam (9CI)· (CA INDEX NAME)

PAGE 1-A

#### PAGE 2-A

REFERENCE COUNT:

THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:50809 CAPLUS

DOCUMENT NUMBER:

142:156325

TITLE:

Synthesis and evaluation of cyclic oligopeptide

analogs as C5a receptor antagonists for treatment of

disease

INVENTOR(S):

Hummel, Gerd; Knolle, Jochen; Locardi, Elsa;

Polakowski, Thomas; Scharn, Dirk; Schnatbaum, Karsten

PATENT ASSIGNEE(S):

SOURCE:

Jerini A.-G., Germany Eur. Pat. Appl., 59 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.					KIND		DATE		Ī	APPL	[CAT]		DATE				
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WO 2005010030					A2	2	2005	0203	Ţ	WO 20	004-1						
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EP 1646643 A2 20060419 EP 2004-763337 20040719
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
PRIORITY APPLN. INFO.: EP 2003-16233 A 20030717
WO 2004-EP805.7 W 20040719

OTHER SOURCE(S): MARPAT 142:156325

ED Entered STN: 20 Jan 2005

GT

AB Title compds., e.g. (I), containing D- or unnatural amino acids, were prepared and tested for their activity as C5a receptor antagonists. Thus, I, similar cyclic compds., or non-cyclic free acids, amides, and/or N-terminal acylated derivs., were prepared by combined solid-phase and solution chemical (later steps of example prepns. given). In in vitro enzyme release assay testing using rat blood cells carrying the C5a receptor, I had IC50 5 nM < I < 10 nM, with an EC50 value of > 1430 nM. Structure activity relationships of the claimed compds. was studied using a pharmacophore model of the compound's interaction with the receptor site. AB-permeability of two compds. (Ac-Phe[Orn-Pro-cha-Trp-Arg] and Ac-Phe[Orn-Hyp-cha-Trp-Phe]; cha - D- $\beta$ -cyclohexylalanine) was studied using TC-7 cells.

Ι

IC ICM C07K007-06

ICS C07K014-47; C07K014-705; C07K007-50

CC 34-3 (Amino Acids, Peptides, and Proteins) Section cross-reference(s): 1, 63

oligopeptide analog prepn C5a receptor antagonist treatment disease; rheumatoid arthritis Lupus erythematosus psoriasis treatment C5a receptor antagonist; asthma septic shock multiple sclerosis treatment C5a receptor antagonist; pemphigus inflammatory bowel disease dermatomyositis treatment C5a receptor antagonist; lung disease myasthenia gravis treatment C5a receptor antagonist; cerebral apoplexy vasculitis reperfusion disorder treatment C5a receptor antagonist; central nervous system inflammation injury treatment C5a receptor antagonist

IT Intestine, disease

(inflammatory; Synthesis and evaluation of cyclic oligopeptide analogs as C5a receptor antagonists for treatment of **disease**)

TT 133254-16-7P 219639-70-0P 219639-75-5P 514814-62-1P 514814-76-7P 514814-77-8P 514814-78-9P 827599-70-2P 827599-71-3P 827599-72-4P

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RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
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(Synthesis and evaluation of cyclic oligopeptide analogs as C5a receptor antagonists for treatment of disease).

#### TT 827600-12-4P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Synthesis and evaluation of cyclic oligopeptide analogs as C5a receptor antagonists for treatment of disease)

RN827600-12-4 CAPLUS

L-Norleucine, L-phenylalanyl-L-ornithyl-L-seryl-3-cyclohexyl-D-alanyl-L-CNtryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

8

REFERENCE COUNT:

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:1036918 CAPLUS

DOCUMENT NUMBER:

142:765

TITLE:

Method of treatment of systemic injury secondary to

burns

INVENTOR(S):

Shiels, Ian Alexander; Taylor, Steven Maxwell; Stocks,

Shelli Z.

PATENT ASSIGNEE(S):

The University of Queensland, Australia

SOURCE:

PCT Int. Appl., 52 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

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FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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		TD,	•		•		•	•		•	•		•	•		•
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EP 16	41482			A1		2006	0405		EP 2	004-	7347	88 -		2	0040	526
R	: AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
	IE,	SI,	FI,	RO,	CY,	TR,	BG,	CZ,	EE,	HU,	PL,	SK	•			•
PRIORITY A	PPLN.	INFO	. :	•		,			AU 2	003-	9025	86	7	A 2	0030	526
								1	WO 2	004-2	AU70:	3				

MARPAT 142:765 OTHER SOURCE(S): Entered STN: 03 Dec 2004 ED The invention relates to the prevention or treatment of a systemic injury AB which is secondary to a burn, such as dysfunction or failure of an organ secondary to a burn, with an antagonist of a C5a receptor. In one embodiment the invention relates to the prevention or treatment of dysfunction or failure of the lung, kidney, bowel and/or liver which is secondary to a burn. ICM A61K038-08 IC ICS A61K038-12; A61P017-02; A61P039-00; C07K007-56 CC 1-12 (Pharmacology) Intestine, disease IT Kidney, disease Liver, disease Lung, disease Organ, animal, disease (failure; treatment of systemic injury secondary to burns) 514814-36-9 219639-75-5, PMX 53 514814-35-8 TT 514814-34-7 514814-42-7 514814-43-8 514814-38-1 514814-44-9 514814-37-0 514814-47-2 514814-51-8 514814-46-1 514814-49-4 514814-45-0 514814-58-5 514814-57-4 514814-52-9 514814-54-1 514814-62-1 514814-63-2 514814-66-5 514814-65-4 514814-60-9 514814-68-7 514814-69-8 514814-71-2 514814-72-3 514814-67-6 514814-75-6 514814-76-7 514814-77-8 514814-73-4 514814-74-5 514814-79-0 514814-80-3 514814-81-4 514814-83-6 514814-78-9 514814-85-8 514814-86-9 514814-87-0 514814-88-1 514814-84-7 514814-91-6 514814-92-7 514814-93-8 514814-94-9 514814-89-2 514814-95-0 514814-96-1 . 514814-97-2 514814-98-3 615552-33-5 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (treatment of systemic injury secondary to burns)

514814-52-9 514814-54-1 IT

> RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (treatment of systemic injury secondary to burns)

RN514814-52-9 CAPLUS

L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-valyl-3-cyclohexyl-D-CN alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

RN514814-54-1 CAPLUS

L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-phenylalanyl-3-cyclohexyl-D-alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH} \\ & \\ & \\ \text{H}_2\text{N-C-NH-} \text{ (CH}_2)_3 \\ & \\ & \\ \text{CH}_2 \\ & \\ & \\ \text{NH-C-CH}_2\text{-Ph} \\ & \\ & \\ & \\ \text{NH-C-CH}_2\text{-Ph} \\ \end{array}$$

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

6

ACCESSION NUMBER:

2004:354812 CAPLUS

DOCUMENT NUMBER:

140:368676

TITLE:

Treatment of hypersensitivity conditions with cyclic

peptide and peptidomimetic inhibitors of G

protein-coupled receptors

INVENTOR(S):

Shiels, Ian Alexander; Taylor, Steven Maxwell;

Fairlie, David

PATENT ASSIGNEE(S):

The University of Queensland, Australia

PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	ENT	NO.			KIND		DATE			APPL	ICAT	DATE						
WO 2004035080					A1		2004	0429	,	WO 2	003-2	20031016						
	W :	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	GE,	
		GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	ΚP,	KR,	KZ,	LC,	LK,	
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	
		OM,	PG,	PH,	ΡL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	
		TN,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UZ,	VC,	VN,	YŪ,	ZA,	ZM,	zw			
	RW:	GH,	GM,	KΕ,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,	
		KG,	ΚZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
		FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	ΝL,	PT,	RO,	SE,	SI,	SK,	TR,	
		BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG	
AU 2003266862				A1	A1 20040504			AU 2	003-		20031016							
EP 1560592					A1		20050810			EP 2	003-	20031016						

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     JP 2006505556
                                20060216
                                           JP 2004-543827
                          T2
                                                                   20031016
                                            AU 2002-952129
PRIORITY APPLN. INFO.:
                                                                À 20021017
                                            WO 2003-AU1374
                                                                W 20031016
OTHER SOURCE(S):
                         MARPAT 140:368676
    Entered STN: 30 Apr 2004
     This invention relates to methods of treatment of hypersensitivity
AB
     conditions such as asthma and other allergic conditions, and especially to
     treatment of these conditions with cyclic peptidic and peptidomimetic
     compds. which have the ability to modulate the activity of G
     protein-coupled receptors. The compds. preferably act as antagonists of
     the C5a receptor, and are active against C5a receptors on
     polymorphonuclear leukocytes and macrophages. Particularly preferred
     compds. for use in the methods of the invention are disclosed. Dogs with
     allergic dermatitis were treated with cyclic peptide PMX53
     (AcF-[OPdChaWR]).
     ICM A61K038-08
     ICS A61K038-12; A61P011-06; A61P037-08
     1-7 (Pharmacology)
     Section cross-reference(s): 15, 34
     cyclic peptide inhibitor G protein coupled receptor
     hypersensitivity; peptidomimetic inhibitor G protein
     coupled receptor hypersensitivity; C5a receptor antagonist treatment
     hypersensitivity; allergic dermatitis dog treatment cyclic peptide PMX53
IT
     Immunity
        (Arthus phenomenon, treatment of; cyclic peptide and peptidomimetic
        inhibitors of G protein-coupled receptors for
        treatment of hypersensitivity conditions)
IT
     Complement receptors
     RL: ADV (Adverse effect, including toxicity); BSU (Biological study,
     unclassified); BIOL (Biological study)
        (C5a, inhibitors; cyclic peptide and peptidomimetic inhibitors of
        G protein-coupled receptors for treatment of
        hypersensitivity conditions)
IT
     Allergy
        (allergic dermatitis, treatment of; cyclic peptide and peptidomimetic
        inhibitors of G protein-coupled receptors for
        treatment of hypersensitivity conditions)
IT
     Dermatitis
        (allergic, treatment of; cyclic peptide and peptidomimetic inhibitors
        of G protein-coupled receptors for treatment of
        hypersensitivity conditions)
     Siphonaptera
IT
        (allergy to, treatment of; cyclic peptide and peptidomimetic inhibitors
        of G protein-coupled receptors for treatment of
        hypersensitivity conditions) .
     Dermatitis
IT
        (atopic, treatment of; cyclic peptide and peptidomimetic inhibitors of
        G protein-coupled receptors for treatment of
        hypersensitivity conditions)
     Allergy inhibitors
IT
     Anti-inflammatory agents
     Antiasthmatics
     Human
     Peptidomimetics
     Physiological saline solutions
        (cyclic peptide and peptidomimetic inhibitors of G
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
```

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Interleukin 6
TT
     Tumor necrosis factors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (cyclic peptide and peptidomimetic inhibitors of G
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
     Polyoxyalkylenes, biological studies
IT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (cyclic peptide and peptidomimetic inhibitors of G
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
     Peptides, biological studies
     RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
     THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (cyclic; cyclic peptide and peptidomimetic inhibitors of G
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
     Eosinophil
        (disease, hypereosinophilic syndrome, treatment of; cyclic peptide and
        peptidomimetic inhibitors of G protein-coupled
        receptors for treatment of hypersensitivity conditions)
IT
     Lung, disease
        (farmer's lung, treatment of; cyclic peptide and peptidomimetic
        inhibitors of G protein-coupled receptors for
        treatment of hypersensitivity conditions)
IT
     Inflammation
     Kidney, disease
        (glomerulonephritis, treatment of; cyclic peptide and peptidomimetic
        inhibitors of G protein-coupled receptors for
        treatment of hypersensitivity conditions)
     Blood, disease
IT
        (hypereosinophilic syndrome, treatment of; cyclic peptide and
        peptidomimetic inhibitors of G protein-coupled
        receptors for treatment of hypersensitivity conditions)
IT
        (hypersensitivity, treatment of; cyclic peptide and peptidomimetic
        inhibitors of G protein-coupled receptors for
        treatment of hypersensitivity conditions)
IT
        (immediate hypersensitivity, type II (cytotoxic) or type III
        (complex-mediated), treatment of; cyclic peptide and peptidomimetic
        inhibitors of G protein-coupled receptors for
        treatment of hypersensitivity conditions)
IT
     Intestine, disease
        (inflammatory, inhibitor used in conjunction with other agents for
        treatment of; cyclic peptide and peptidomimetic inhibitors of G
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
IT
     Drug delivery systems
        (inhalants; cyclic peptide and peptidomimetic inhibitors of G
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
IT
     Macrophage
     Polymorphonuclear leukocyte
        (inhibition of C5a receptor on; cyclic peptide and peptidomimetic
        inhibitors of G protein-coupled receptors for
        treatment of hypersensitivity conditions)
     G protein-coupled receptors
     RL: ADV (Adverse effect, including toxicity); BSU (Biological study,
     unclassified); BIOL (Biological study)
```

```
(inhibitors; cyclic peptide and peptidomimetic inhibitors of G
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
IT
     Drug delivery systems
        (injections, s.c.; cyclic peptide and peptidomimetic inhibitors of
        G protein-coupled receptors for treatment of
        hypersensitivity conditions)
     Skin, disease
IT
        (mange, demodectic, treatment of; cyclic peptide and peptidomimetic
        inhibitors of G protein-coupled receptors for
        treatment of hypersensitivity conditions)
     Drug delivery systems
IT
        (nasal; cyclic peptide and peptidomimetic inhibitors of {\bf G}
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
     Drug delivery systems
IT
        (oral; cyclic peptide and peptidomimetic inhibitors of G
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
     Drug delivery systems
IT
        (topical; cyclic peptide and peptidomimetic inhibitors of G
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
     Canis familiaris
IT
        (treatment of allergic dermatitis in; cyclic peptide and peptidomimetic
        inhibitors of G protein-coupled receptors for
        treatment of hypersensitivity conditions)
     Felis catus
TT
     Panthera tigris tigris
        (treatment of asthma in; cyclic peptide and peptidomimetic inhibitors
        of G protein-coupled receptors for treatment of
        hypersensitivity conditions)
     Demodex canis
TT
        (treatment of dermatitis from; cyclic peptide and peptidomimetic
        inhibitors of G protein-coupled receptors for
        treatment of hypersensitivity conditions)
     Allergy
IT
     Asthma
     Dermatitis
     Eczema
        (treatment of; cyclic peptide and peptidomimetic inhibitors of
        G protein-coupled receptors for treatment of
        hypersensitivity conditions)
     219639-75-5, PMX 53
                                          514814-35-8
                                                        514814-36-9
                            514814-34-7
IT
                                                514814-43-8
                                                              514814-44-9
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     514814-37-0
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                                                              514814-51-8
     514814-45-0
     514814-52-9 514814-54-1
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                                                514814-98-3
                                                               514814-99-4
                   514814-96-1
     514814-95-0
     RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
     PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
         (cyclic peptide and peptidomimetic inhibitors of G
        protein-coupled receptors for treatment of hypersensitivity
        conditions)
```

IT 64-17-5, Ethanol, biological studies 67-68-5, DMSO, biological studies 7732-18-5, Water, biological studies 25322-68-3 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (cyclic peptide and peptidomimetic inhibitors of G protein-coupled receptors for treatment of hypersensitivity conditions) IT 170277-31-3, Infliximab RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (inhibitor used in conjunction with; cyclic peptide and peptidomimetic inhibitors of G protein-coupled receptors for treatment of hypersensitivity conditions) IT 80295-42-7, C3a RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors, inhibitor used in conjunction with; cyclic peptide and peptidomimetic inhibitors of G protein-coupled receptors for treatment of hypersensitivity conditions) IT 514815-00-0 RL: PRP (Properties) (unclaimed; treatment of hypersensitivity conditions with cyclic peptide and peptidomimetic inhibitors of G protein -coupled receptors) IT514814-52-9 514814-54-1 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (cyclic peptide and peptidomimetic inhibitors of G protein-coupled receptors for treatment of hypersensitivity conditions)

L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-valyl-3-cyclohexyl-D-

alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

RN 514814-54-1 CAPLUS
CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-phenylalanyl-3-cyclohexylD-alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

RN

CN

514814-52-9 CAPLUS

$$\begin{array}{c|c} & \text{NH} \\ & \text{H}_2\text{N}-\text{C}-\text{NH}-\text{(CH}_2)_3} \\ & \text{O} & \text{O} & \text{H} \\ & \text{N} & \text{O} & \text{NHAC} \\ & \text{HN} & \text{H} & \text{NH}-\text{C}-\text{CH}-\text{CH}_2-\text{Ph} \\ & \text{O} & \text{CH}_2 & \text{R} & \text{O} \\ \end{array}$$

REFERENCE COUNT:

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:354811 CAPLUS

DOCUMENT NUMBER:

140:368675

TITLE:

G protein-coupled

receptor-modulating cyclic peptides and peptidomimetic

compounds for the treatment of osteoarthritis Shiels, Ian Alexander; Taylor, Steven Maxwell

PATENT ASSIGNEE(S):

The University of Queensland, Australia

COURGE

PCT Int. Appl., 44 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

INVENTOR(S):

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	TENT 1	10.			KINI	KIND DATE			1	APPL	CAT	DATE					
WO 2004035079					A1 20040429			1	NO 20	003-7		20031016					
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		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	GE,
		GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KΡ,	KR,	KZ,	LC,	LK,
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,
		OM,	PG,	PH;	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	TJ,	TM,
		TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw		
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		BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
	2003							0504									
ΕP	1575	606			A1		2005	0921		EP 2	003-	7501	72		2	0031	016
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		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK	

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JP 2006505555
                           T2
                                 20060216
                                             JP 2004-543826
                                                                    20031016
 PRIORITY APPLN. INFO.:
                                             AU 2002-952086
                                                                A 20021016
                                             WO 2003-AU1373
                                                                W 20031016
OTHER SOURCE(S):
                         MARPAT 140:368675
ĘD
     Entered STN: 30 Apr 2004
      The invention discloses methods for treatment of osteoarthritis, and especially
AΒ
      to treatment of this condition with cyclic peptidic and peptidomimetic
      compds. which have the ability to modulate the activity of G
      protein-coupled receptors. The compds. preferably act as antagonists of
      the C5a receptor, and are active against C5a receptors on
      polymorphonuclear leukocytes and macrophages.
 IC
      ICM A61K038-08
      ICS A61K038-12; A61P019-02
CC
      1-7 (Pharmacology)
 st
      G protein coupled receptor modulator cyclic peptide
      peptidomimetic osteoarthritis
 ΤТ
      Complement receptors
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (C5a; G protein-coupled receptor-modulating cyclic
         peptides and peptidomimetics for treatment of osteoarthritis).
IT
     Antiarthritics
     Osteoarthritis
      Peptidomimetics
         (G protein-coupled receptor-modulating cyclic
        peptides and peptidomimetics for treatment of osteoarthritis)
     G protein-coupled receptors
      Interleukin 6
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (G protein-coupled receptor-modulating cyclic
        peptides and peptidomimetics for treatment of osteoarthritis)
IT
     Tumor necrosis factors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (TNF-\alpha; G protein-coupled receptor-modulating
         cyclic peptides and peptidomimetics for treatment of osteoarthritis)
IT
     Peptides, biological studies
      RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
         (cyclic; G protein-coupled receptor-modulating
        cyclic peptides and peptidomimetics for treatment of osteoarthritis)
ΙT
     Immunity
         (reverse passive Arthus phenomenon; G protein
         -coupled receptor-modulating cyclic peptides and peptidomimetics for
         treatment of osteoarthritis)
ΙT
     80295-54-1, Complement C5a
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (G protein-coupled receptor-modulating cyclic
        peptides and peptidomimetics for treatment of osteoarthritis)
TΤ
     219639-70-0
                   219639-75-5
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     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
         (G protein-coupled receptor-modulating cyclic
        peptides and peptidomimetics for treatment of osteoarthritis)
```

IT 514814-52-9 514814-54-1

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(G protein-coupled receptor-modulating cyclic

peptides and peptidomimetics for treatment of osteoarthritis)

RN 514814-52-9 CAPLUS

CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-valyl-3-cyclohexyl-D-alanyl-L-tryptophyl-,  $(6\rightarrow 2)$ -lactam (9CI) (CA INDEX NAME)

RN 514814-54-1 CAPLUS

CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-phenylalanyl-3-cyclohexyl-D-alanyl-L-tryptophyl-,  $(6\rightarrow 2)$ -lactam (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:354810 CAPLUS DOCUMENT NUMBER: 140:332495 TITLE: G protein-coupled receptor-modulating cyclic peptides and peptidomimetic compounds for the treatment of inflammatory bowel disease INVENTOR(S): Woodruff, Trent Martin; Taylor, Steven PATENT ASSIGNEE(S): The University of Queensland, Australia SOURCE: PCT Int. Appl., 57 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE ---------------WO 2004035078 20040429 WO 2003-AU1365 A1 20031015 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2003269602 A1 20040504 AU 2003-269602 20031015 A1 20050803 EP 2003-750165 20031015 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK JP 2006505621 T220060216 JP 2005-501247 20031015 PRIORITY APPLN. INFO.: AU 2002-952084 A 20021016 AU 2003-902452 A 20030520 W 20031015 WO 2003-AU1365 OTHER SOURCE(S): MARPAT 140:332495 Entered STN: 30 Apr 2004 AB The invention discloses methods for treatment of inflammatory bowel disease, and especially to treatment of this condition with cyclic peptidic and peptidomimetic compds. which have the ability to modulate the activity of G protein-coupled receptors. The compds. preferably act as antagonists of the C5a receptor, and are active against C5a receptors on polymorphonuclear leukocytes and macrophages. IC ICM A61K038-08 ICS A61K038-12; A61P029-00; A61P001-00 CC 1-7 (Pharmacology) G protein coupled receptor modulator inflammatory bowel disease treatment; cyclic peptide peptidomimetic inflammatory bowel disease treatment Complement receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (C5a; G protein-coupled receptor-modulating cyclic peptides and peptidomimetics for treatment of inflammatory bowel disease) IT Inflammation (Crohn's disease; G protein-coupled receptor-modulating cyclic peptides and peptidomimetics for treatment of inflammatory bowel disease)

Intestine, disease

```
(Crohn's; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
     Anti-inflammatory agents
TΤ
     Celiac disease
     Gastrointestinal agents
     Peptidomimetics
        (G protein-coupled receptor-modulating cyclic
        peptides and peptidomimetics for treatment of inflammatory
        bowel disease)
     G protein-coupled receptors
TT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (G protein-coupled receptor-modulating cyclic
        peptides and peptidomimetics for treatment of inflammatory
        bowel disease)
IT
     Tumor necrosis factors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (TNF-\alpha; G protein-coupled receptor-modulating
        cyclic peptides and peptidomimetics for treatment of
        inflammatory bowel disease)
     Canis familiaris
IT
        (canine lymphocytic-plasmocytic colitis; G
        protein-coupled receptor-modulating cyclic peptides and
        peptidomimetics for treatment of inflammatory bowel
        disease)
     Drug delivery systems
IT
        (capsules, enteric-coated; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
IT
     Inflammation
       Intestine, disease
        (colitis, canine lymphocytic-plasmocytic; G
        protein-coupled receptor-modulating cyclic peptides and
        peptidomimetics for treatment of inflammatory bowel
        disease)
IT
     Inflammation
       Intestine, disease
        (colitis, collagenous; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
     Inflammation
IT
       Intestine, disease
        (colitis, infectious; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
IT
     Inflammation
       Intestine, disease
        (colitis, lymphocytic; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
     Inflammation
IT
       Intestine, disease
        (colitis, protothecal; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
     Inflammation
IT
       Intestine, disease
        (colitis, pseusomembranous; G protein
        -coupled receptor-modulating cyclic peptides and peptidomimetics for
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treatment of inflammatory bowel disease)
IT
     Inflammation
       Intestine, disease
        (colitis; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
     Peptides, biological studies
IT
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (cyclic; G protein-coupled receptor-modulating
        cyclic peptides and peptidomimetics for treatment of
        inflammatory bowel disease)
     Inflammation
TT
       Intestine, disease
        (enteritis, lymphocytic-plasmocytic; G
        protein-coupled receptor-modulating cyclic peptides and
        peptidomimetics for treatment of inflammatory bowel
        disease)
IT
     Inflammation
       Intestine, disease
        (enterocolitis, eosinophilic; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
TT
     Inflammation
       Intestine, disease
        (enterocolitis; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
    Intestine, disease
TT
        (inflammatory, ischemic; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
IT
     Intestine, disease
        (inflammatory; G protein-coupled
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
     Drug delivery systems
IT
        (rectal; G protein-coupled receptor-modulating
        cyclic peptides and peptidomimetics for treatment of
        inflammatory bowel disease)
IT
     Inflammation
       Intestine, disease
        (ulcerative colitis, histocytic; G protein
        -coupled receptor-modulating cyclic peptides and peptidomimetics for
        treatment of inflammatory bowel disease)
IT
     Inflammation
       Intestine, disease
        (ulcerative colitis; G protein-coupled .
        receptor-modulating cyclic peptides and peptidomimetics for treatment
        of inflammatory bowel disease)
IT
     514814-34-7
                  514814-35-8
                                 514814-36-9
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514814-98-3 514814-96-1 514814-97-2 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (G protein-coupled receptor-modulating cyclic peptides and peptidomimetics) 80295-42-7, Complement C3a 80295-54-1, Complement C5a IT RL: BSU (Biological study, unclassified); BIOL (Biological study) (G protein-coupled receptor-modulating cyclic peptides and peptidomimetics for treatment of inflammatory bowel disease) 170277-31-3, Infliximab 219639-75-5, PMX 53 IT 50-24-8, Prednisolone RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (G protein-coupled receptor-modulating cyclic peptides and peptidomimetics for treatment of inflammatory bowel disease) 514814-52-9 514814-54-1 IT RL: PAC (Pharmaçological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (G protein-coupled receptor-modulating cyclic peptides and peptidomimetics) RN 514814-52-9 CAPLUS L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-valyl-3-cyclohexyl-D-CN alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

RN 514814-54-1 CAPLUS
CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-phenylalanyl-3-cyclohexylD-alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

REFERENCE COUNT:

4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:836884 CAPLUS

DOCUMENT NUMBER:

139:333147

TITLE:

Use of C5a receptor antagonist in the treatment of

fibrosis

INVENTOR(S):

Taylor, Stephen Maxwell; Shiels, Ian Alexander; Brown,

Lindsay Charles

PATENT ASSIGNEE(S):

Promics Pty Limited, Australia

SOURCE:

PCT Int. Appl., 60 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	ENT 1	NO.	•	KIND DATE					APPL	ICAT		DATE					
WO 2003086448						A1 20031023				 WO 2	 003-2		20030407				
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	ΒŸ,	ΒZ,	CA,	CH,	CN,
																·GE,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,
		PH,	PL,	PT,	RO,	RÚ,	SC,	SD,	SE,	SG,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,
		TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW					
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	•	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
AU	2003	2154	46		A1		2003	1027		AU 2	003-	2154	46		2	00304	107
EP 1496929			<b>A</b> 1		2005	0119		EP 2	0 0.3 - ,	7461	52		20030407				
	R:	AT,	BE,	CH,	DE,	DK;	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK	

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JP 2003-583466
     JP 2005529872
                          T2
                                20051006
                                                                   20030407
                                            AU 2002-1606
PRIORITY APPLN. INFO.:
                                                               A 20020408
                                            WO 2003-AU415
                                                               W 20030407
                        MARPAT 139:333147
OTHER SOURCE(S):
     Entered STN: 24 Oct 2003
     The invention discloses the use of an antagonist of a G protein-coupled
AB
     receptor in the prevention and/or treatment of fibrosis, e.g. the
     treatment of fibrosis associated with myocardial infarction or diabetes or
     certain pulmonary conditions. In a preferred embodiment, the antagonist
     is a C5a receptor antagonist, more preferably a cyclic peptide antagonist
     of the C5a receptor. In particular, the invention provides a method of
     prevention, treatment or alleviation of a fibrotic condition, comprising
     the step of administering an effective amount of an antagonist of a G
     protein-coupled receptor to a subject in need of such treatment.
     ICM A61K038-04
IC
     ICS A61K039-395; A61K038-08; A61P013-12; A61P009-10; A61P011-00
     1-12 (Pharmacology)
     G protein coupled receptor antagonist fibrosis
     treatment; C5a receptor antagonist fibrosis treatment
     G protein-coupled receptors
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (antagonists; C5a receptor antagonist in treatment of fibrosis)
IT
     219639-75-5, PMX 53
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                   615552-30-2
                                 615552-33-5
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (C5a receptor antagonist in treatment of fibrosis)
IT
     514814-52-9 514814-54-1
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (C5a receptor antagonist in treatment of fibrosis)
RN
     514814-52-9 CAPLUS
     L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-valyl-3-cyclohexyl-D-
CN
     alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)
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RN 514814-54-1 CAPLUS

CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-phenylalanyl-3-cyclohexyl-D-alanyl-L-tryptophyl-,  $(6\rightarrow 2)$ -lactam (9CI) (CA INDEX NAME)

R | Ph-CH2

REFERENCE COUNT:

3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:319928 CAPLUS

DOCUMENT NUMBER:

138:331692

TITLE:

Cyclic peptides and peptidomimetic compounds as

G protein-coupled receptor

antagonists, and therapeutic use

INVENTOR(S):

Taylor, Steve; Shiels, Ian Alexander

PATENT ASSIGNEE(S):

University of Queensland, Australia

SOURCE: PCT Int. Appl., 97 pp.

CODEN: PIXXD2

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DOCUMENT TYPE:
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Patent English

7

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                          KIND
                                 DATE
                                              APPLICATION NO.
                                                                       DATE
     ______
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                                              _____
                                                                       _____
     WO 2003033528
                           A1
                                 20030424
                                              WO 2002-AU1427
                                                                       20021017
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, .
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2463675
                           AA
                                 20030424
                                              CA 2002-2463675
                                                                       20021017
     EP 1444251
                           A1
                                 20040811
                                              EP 2002-771873
                                                                       20021017
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
         R:
     CN 1604909
                           Α
                                 20050406
                                              CN 2002-825257
                                                                       20021017
     JP 2005515973
                           T2
                                 20050602
                                              JP 2003-536266
                                                                       20021017
PRIORITY APPLN. INFO.:
                                              AU 2001-8334
                                                                   A
                                                                       20011017
                                              WO 2002-AU1427
                                                                   W
                                                                       20021017
OTHER SOURCE(S):
                          MARPAT 138:331692
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EDEntered STN: 25 Apr 2003

- ABThe invention provides cyclic compds. which have the ability to modulate the activity of G protein-coupled receptors. The compds. preferably act as antagonists. In preferred embodiments, the invention provides cyclic peptidic and peptidomimetic antagonists of C5a receptors, which are active against C5a receptors on polymorphonuclear leukocytes and macrophages. The compds. of the invention are both potent and selective, and are useful in the treatment of a variety of inflammatory conditions.
- IC ICM C07K007-56
- A61K038-08; A61P011-00; A61P009-10; A61P017-00; A61P037-00
- 1-7 (Pharmacology)

Section cross-reference(s): 34

- ST G protein coupled receptor antagonist cyclic peptidomimetic peptide prepn; antiinflammatory G protein coupled receptor antagonist cyclic peptidomimetic peptide; c5a receptor antagonist cyclic peptidomimetic peptide
- ITImmunity

(Arthus phenomenon; cyclic peptides and peptidomimetic compds. as G protein-coupled receptor antagonists, and therapeutic use)

ITComplement receptors

> RL: BSU (Biological study, unclassified); BIOL (Biological study) (C5a; cyclic peptides and peptidomimetic compds. as G

protein-coupled receptor antagonists, and therapeutic use)

IT Tumor necrosis factors

RL: BSU (Biological study, unclassified); BIOL (Biological study)  $(TNF-\alpha; cyclic peptides and peptidomimetic compds. as G$ 

protein-coupled receptor antagonists, and therapeutic use)

IT Respiratory distress syndrome

(adult; cyclic peptides and peptidomimetic compds. as G protein-coupled receptor antagonists, and therapeutic use)

IT Antiarteriosclerotics

(antiatherosclerotics; cyclic peptides and peptidomimetic compds. as

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G protein-coupled receptor antagonists, and
        therapeutic use)
IT
     Ischemia
        (cardiac; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
        (contact; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
     Alzheimer's disease
     Anti-Alzheimer's agents
     Anti-inflammatory agents
     Anti-ischemic agents
     Antiarthritics
     Antiasthmatics
     Antirheumatic agents
     Asthma
     Atherosclerosis
     Cardiovascular agents
     Central nervous system, disease
     Dermatitis
     Drug delivery systems
     Eczema
     Fibrosis
     Multiple sclerosis
     Nervous system agents
     Neutrophil
     Peptidomimetics
     Pharmacophores
     Polymorphonuclear leukocyte
     Psoriasis
     Rheumatoid arthritis
     Transplant rejection
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     G protein-coupled receptors
     Haptoglobin
     Interleukin 6
     Tachykinin receptors
     Vasopressin receptors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Peptides, biological studies
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (cyclic; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
ΙŤ
     Mental and behavioral disorders
        (dementia; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Muscle
        (edema; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Disease, animal
        (extracorporeal post-dialysis syndrome; cyclic peptides and
        peptidomimetic compds. as G protein-coupled
        receptor antagonists, and therapeutic use)
IT
     Gingiva, disease
     Inflammation
        (gingivitis; cyclic peptides and peptidomimetic compds. as G
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protein-coupled receptor antagonists, and therapeutic use)
    Lung, disease
IT
     Reperfusion
        (injury; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
        (intestinal; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
    Heart, disease
ΙT
       Intestine, disease
        (ischemia; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
     Ischemia
IT
        (limb; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Arthritis
        (monoarticular; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Agranulocytosis
        (neutropenia; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Proteins
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
      (proteinuria; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
TT
     Injury
        (pulmonary; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
     Injury
IT
        (reperfusion; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
     Shock (circulatory collapse)
TΤ
        (septic; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
TΤ
     Lupus erythematosus
        (systemic; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
TT
     Drug delivery systems
        (topical; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
     57-13-6, Urea, biological studies
TΤ
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (blood urea nitrogen; cyclic peptides and peptidomimetic compds. as
        G protein-coupled receptor antagonists, and
        therapeutic use)
                           7440-09-7, Potassium, biological studies
TT
     60-27-5, Creatinine
     7440-70-2, Calcium, biological studies
                                              9000-86-6, Alanine transaminase
     9000-97-9, Aspartate aminotransferase
                                             9001-15-4, Creatine kinase
     9001-60-9, Lactate dehydrogenase
                                        9003-99-0, Myeloperoxidase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
                                   514814-35-8P
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     514814-81-4P
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G protein-coupled receptor antagonists, and
        therapeutic use)
IT
     Ischemia
        (cardiac; cyclic peptides and peptidomimetic compds. as {\tt G}
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Dermatitis
        (contact; cyclic peptides and peptidomimetic compds. as {\bf G}
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Alzheimer's disease
     Anti-Alzheimer's agents
     Anti-inflammatory agents
     Anti-ischemic agents
     Antiarthritics
     Antiasthmatics
     Antirheumatic agents
     Asthma
     Atherosclerosis
     Cardiovascular agents
     Central nervous system, disease
     Dermatitis
     Drug delivery systems
     Eczema
     Fibrosis
     Multiple sclerosis
     Nervous system agents
     Neutrophil
     Peptidomimetics
     Pharmacophores
     Polymorphonuclear leukocyte
     Psoriasis '
     Rheumatoid arthritis
     Transplant rejection
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use) .
IT
     G protein-coupled receptors
     Haptoglobin
     Interleukin 6
     Tachykinin receptors
     Vasopressin receptors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Peptides, biological studies
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (cyclic; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Mental and behavioral disorders
        (dementia; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
TT
     Muscle
        (edema; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
TT
     Disease, animal
        (extracorporeal post-dialysis syndrome; cyclic peptides and
        peptidomimetic compds. as G protein-coupled
        receptor antagonists, and therapeutic use)
IT
     Gingiva, disease
     Inflammation
        (gingivitis; cyclic peptides and peptidomimetic compds. as G
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protein-coupled receptor antagonists, and therapeutic use)
IT . Lung, disease
     Reperfusion
        (injury; cyclic peptides and peptidomimetic compds. as G
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IT
        (intestinal; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
     Heart, disease
IT
       Intestine, disease
        (ischemia; cyclic peptides and peptidomimetic compds. as G
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IT
        (limb; cyclic peptides and peptidomimetic compds. as G
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IT
     Arthritis
        (monoarticular; cyclic peptides and peptidomimetic compds. as G
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IT
     Agranulocytosis
        (neutropenia; cyclic peptides and peptidomimetic compds. as G
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IT
     Proteins
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (proteinuria; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
TT
     Injury
        (pulmonary; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
       ·(reperfusion; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Shock (circulatory collapse)
        (septic; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     Lupus erythematosus
        (systemic; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
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     Drug delivery systems
        (topical; cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
     57-13-6, Urea, biological studies
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     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (blood urea nitrogen; cyclic peptides and peptidomimetic compds. as
        G protein-coupled receptor antagonists, and
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                           7440-09-7, Potassium, biological studies
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                                              9000-86-6, Alanine transaminase
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DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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DATE
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                         AA 20030424 CA 2002-2463675
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                                                                       Α
PRIORITY APPLN. INFO.:
                                                 WO 2002-AU1427
                                                                       W 20021017
                           MARPAT 138:331692
OTHER SOURCE(S):
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Entered STN: 25 Apr 2003 ED

- The invention provides cyclic compds. which have the ability to modulate AB the activity of G protein-coupled receptors. The compds. preferably act In preferred embodiments, the invention provides cyclic as antagonists. peptidic and peptidomimetic antagonists of C5a receptors, which are active against C5a receptors on polymorphonuclear leukocytes and macrophages. The compds. of the invention are both potent and selective, and are useful in the treatment of a variety of inflammatory conditions.
- ICM C07K007-56 IC
  - A61K038-08; A61P011-00; A61P009-10; A61P017-00; A61P037-00
- 1-7 (Pharmacology) CC

Section cross-reference(s): 34

- G protein coupled receptor antagonist cyclic STpeptidomimetic peptide prepn; antiinflammatory G protein coupled receptor antagonist cyclic peptidomimetic peptide; c5a receptor antagonist cyclic peptidomimetic peptide
- Immunity IT

(Arthus phenomenon; cyclic peptides and peptidomimetic compds. as G protein-coupled receptor antagonists, and

therapeutic use)

ITComplement receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (C5a; cyclic peptides and peptidomimetic compds. as  ${\bf G}$ protein-coupled receptor antagonists, and therapeutic use)

Tumor necrosis factors IT

RL: BSU (Biological study, unclassified); BIOL (Biological study)  $(TNF-\alpha; cyclic peptides and peptidomimetic compds. as G$ protein-coupled receptor antagonists, and therapeutic use)

Respiratory distress syndrome IT

(adult; cyclic peptides and peptidomimetic compds. as  ${\bf G}$ protein-coupled receptor antagonists, and therapeutic use)

Antiarteriosclerotics IT

(antiatherosclerotics; cyclic peptides and peptidomimetic compds. as

RN 514814-54-1 CAPLUS

CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-phenylalanyl-3-cyclohexyl-D-alanyl-L-tryptophyl-,  $(6\rightarrow 2)$ -lactam (9CI) (CA INDEX NAME)

REFERENCE COUNT:

3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:319928 CAPLUS

DOCUMENT NUMBER:

138:331692

TITLE:

Cyclic peptides and peptidomimetic compounds as

G protein-coupled receptor

antagonists, and therapeutic use

INVENTOR(S):

antagonists, and therapeutic use Taylor, Steve; Shiels, Ian Alexander

PATENT ASSIGNEE(S):

University of Queensland, Australia

SOURCE:

PCT Int. Appl., 97 pp.

CODEN: PIXXD2

Page 25

06/15/2006 Searched by Alex Waclawiw

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APPLICATION NO.
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                        KIND
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PRIORITY APPLN. INFO.:
                                           AU 2000-1669
                                                               A 20001124
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                        MARPAT 136:134497
OTHER SOURCE(S):
     Title compds. I [X = CRR'CO2H, CRR'-tetrazolyl, CRR'S03H, CRR'P(O)(OH)2,
AΒ
     CRR'P(O)(OH)(OR"), CHRCH2CO2H, CHRCH2-tetrazolyl, CHRCH2SO3H,
     CHRCH2P(O)(OH)2, CHRCH2P(O)(OH)(OR"), OP(O)(OH)R', NRSO3H, NRP(O)(OH)2,
     NRP(O)(OH)(OR''); R, R', R'' = H, (un)substituted alk(en/yn)yl, acyl,
     arylalkyl, cycloalkylalkyl, heterocyclylalkyl, except that R'' is not
     hydrogen; Q = acyl, carboxamido, sulfonyl, sulfinyl, phosphinyl, etc.]
     were prepared For example, II was synthesized from N-Boc-D-histidine in 11
     steps. II had IC50 = 2.5 \muM for human non-pancreatic secretory
     phospholipase A2 (sPLA2). Homochiral and enantiomeric mixts. of I are
     useful for treatment of (e.g.) inflammatory diseases.
                               THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
                        18
REFERENCE COUNT:
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
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=>

ACCESSION NUMBER: 2003:758632 CAPLUS

DOCUMENT NUMBER: 139:391088

TITLE: Comparative protection against rat intestinal

reperfusion injury by a new inhibitor of sPLA2, COX-1 and COX-2 selective inhibitors, and an LTC4 receptor

antagonist

AUTHOR(S): Arumugam, Thiruma V.; Arnold, Naomi; Proctor, Lavinia

M.; Newman, Michelle; Reid, Robert C.; Hansford, Karl

A.; Fairlie, David P.; Shiels, Ian A.;

Taylor, Stephen M.

CORPORATE SOURCE: Department of Physiology and Pharmacology, School of

Biomedical Sciences, University of Queensland, St.

Lucia, 4072, Australia

SOURCE: British Journal of Pharmacology (2003), 140(1), 71-80

CODEN: BJPCBM; ISSN: 0007-1188

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal LANGUAGE: English

A new group IIa sPLA2 inhibitor was compared with selective inhibitors of COX-1, COX-2 and an LTC4 antagonist for effects on local and remote tissue injuries following ischemia and reperfusion (I/R) of the small intestine in rats. In an acute model of ischemia (30 min) and reperfusion (150 min) injury in the absence of inhibitors, there was significant intestinal hemorrhage, edema and mucosal damage, neutropenia, elevated serum levels of aspartate aminotransferase (AST) and hypotension. Preischemic treatment with the inhibitor of sPLA2 (Group IIa), at 5 mg kg-1 i.v. or 10 mg kg-1 p.o. significantly inhibited I/R-induced neutropenia, the elevation of serum levels of AST, intestinal edema and hypotension. Pretreatment with the COX-2 inhibitor celebrex (10 mg kg-1 i.v.) and the LTC4 antagonist zafirlukast (1 mg kg-1 i.v.) also showed marked improvement with I/R-induced AST, edema and neutropenia. Hypotension was only reduced by the LTC4 antagonist. The COX-1 inhibitor flunixin (1 mg kq-1 i.v.) did not effect improvement in the markers of tissue injury. Histol. examination of rat I/R injury showed that all of the drugs offered some protection to the mucosal layer damage compared to no drug treatment. Given i.v., the sPLA2 inhibitor was more effective than either the COX-1 or COX-2 inhibitors in preventing rat I/R injury. These results indicate that a potent new inhibitor of sPLA2 (group IIa) protects the rat small intestine from I/R injury after oral or i.v. administration. COX-2 and LTC4 inhibitors also showed some beneficial effects against intestinal I/R injury. Our study suggests that sPLA2 (Group IIa) may have a pathogenic role in intestinal I/R in rats.

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:90009 CAPLUS

DOCUMENT NUMBER: 136:134497

TITLE: Synthesis and use of amino acid-derived aliphatic

amides/esters as inhibitors of phospholipases

INVENTOR(S): Reid, Robert C.; Clark, Christopher I.; Hansford,

Karl; Stoermer, Martin J.; McGeary, Ross P.;

Fairlie, David P.

PATENT ASSIGNEE(S): The University of Queensland, Australia

SOURCE: PCT Int. Appl., 109 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

antagonists supports the importance of a turn for receptor binding. Competition between a cyclic antagonist and either C5a or an acyclic agonist for C5aR on PMNLs supports a common or overlapping binding site on the C5aR. Structure-activity relationships for 60 cyclic analogs were evaluated by competitive radioligand binding with C5a (affinity) and myeloperoxidase release (antagonist potency) from human PMNLs, with 20 compds. having high antagonist potencies (IC50, 20 nM - 1  $\mu\text{M})$ . Computer modeling comparisons reveal that potent antagonists share a common cyclic backbone shape, with affinity-determining side chains of defined volume projecting from the cyclic scaffold. These results define a new pharmacophore for C5a antagonist development and advance our understanding of ligand recognition and receptor activation of this G protein-coupled receptor.

REFERENCE COUNT:

THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:878195 CAPLUS

DOCUMENT NUMBER:

140:104944

TITLE:

A Potent Human C5a Receptor Antagonist Protects against Disease Pathology in a Rat Model of

Inflammatory Bowel Disease

AUTHOR(S):

Woodruff, Trent M.; Arumugam, Thiruma V.;

Shiels, Ian A.; Reid, Robert C.; Fairlie, David

P.; Taylor, Stephen M.

CORPORATE SOURCE:

School of Biomedical Sciences, Department of

Physiology and Pharmacology, University of Queensland,

Brisbane, QLD 4072, Australia

SOURCE:

Journal of Immunology (2003), 171(10), 5514-5520

CODEN: JOIMA3; ISSN: 0022-1767

PUBLISHER:

American Association of Immunologists

DOCUMENT TYPE: Journal LANGUAGE: English

The complement system is implicated in the pathogenesis of human AB inflammatory bowel disease, but the specific role of C5a has never been examined We have compared the efficacy of an orally active human C5a receptor antagonist (AcPhe[Orn-Pro-D-cyclohexylalanine-Trp-Arg]), prednisolone, and infliximab against trinitrobenzene sulfonic acid (TNBS)-induced colitis in rats. The drugs were administered either 2 days before or 24 h after TNBS instillation, and rats were then examined after 8 days. Drug-free colitis control rats showed severe disease pathol. with significant mortality (39%). Rats pre or posttreated with the C5a antagonist (10 mg/kg/day peroral, 0.3 mg/kg/day s.c.) had reduced mortality and significantly improved macroscopic scores, colon edema, colon myeloperoxidase levels, reduced concns. of TNF- $\alpha$  levels in the colon and serum, and had greater food intake resulting in greater weight gains than colitis-only rats. Rats pretreated with prednisolone (1 mg/kg/day s.c.) displayed significant improvement in parameters measured. but posttreatment was ineffective. Single dose pretreatment with the  $TNF\text{-}\alpha$  inhibitor infliximab (3 mg/kg i.v.) also had significant improvements in the parameters measured. Rats pretreated with a combination of the C5a antagonist and prednisolone showed no greater improvements than either drug alone. These findings suggest a central role for complement, particularly C5a, in the pathol. of TNBS-induced colitis in rats, indicating a possible therapeutic role for C5a antagonists in inflammatory bowel disease.

REFERENCE COUNT:

THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

54

N(2) - [(2, 2-diphenylethoxy)acetyl] - L-arginine (C3aRA) has been compared with a C5a receptor antagonist (C5aRA), AcF-[OPdChaWR], in a rat model of intestinal I/R. C3aRA (IC50 = 0.15  $\mu$ M) and C5aRA (IC50 = 0.32  $\mu$ M) bound selectively to human polymorphonuclear leukocyte (PMN) C3a and C5a receptors, resp. Effects on circulating neutrophils and blood pressure in the rat were also assessed. Anesthetized rats, subjected to intestinal ischemia (30 min) and reperfusion (120 min), were administered i.v. with either (A) the C3aRA (0.1-1.0 mg kg-1); the C5aRA (1.0 mg kg-1); the C3aRA+C5aRA (each 1.0 mg kg-1); or vehicle, 45 min prior, or (B) the C3aRA (1.0 mg kg-1) or vehicle, 120 min prior to reperfusion. The C3aRA and C5aRA, administered 45 min prior to reperfusion, displayed similar efficacies at ameliorating several disease markers (increased edema, elevated ALT levels and mucosal damage) of rat intestinal I/R. The combination drug treatment did not result in greater injury reduction than either antagonist alone. However, doses of the C3aRA (0.01-10 mg kg-1) caused transient neutropenia, and the highest dose (10 mg kg-1) also caused a rapid and transient hypertension. The C3aRA (1.0 mg kg-1), delivered 120 min prior to reperfusion to remove the global effect of C3aRA-induced neutrophil sequestration, did not attenuate the markers of intestinal I/R, despite persistent C3aR antagonism at this time. C3aR antagonism does not appear to be responsible for the anti-inflammatory actions of this C3aRA in intestinal I/R in the rat. Instead, C3aRA-mediated global neutrophil tissue sequestration during ischemia and early reperfusion may account for the protective effects observed 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS

REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:292659 CAPLUS

DOCUMENT NUMBER: 141:16889

TITLE: Potent cyclic antagonists of the complement C5a

> receptor on human polymorphonuclear leukocytes. Relationships between structures and activity March, Darren R.; Proctor, Lavinia M.; Stoermer,

AUTHOR(S): Martin J.; Sbaglia, Robert; Abbenante, Giovanni; Reid,

Robert C.; Woodruff, Trent M.; Wadi, Khemar;

Paczkowski, Natalii; Tyndall, Joel D. A.; Taylor,

Stephen M.; Fairlie, David P.

CORPORATE SOURCE: Institute for Molecular Bioscience, University of

Queensland, Brisbane, Australia

Molecular Pharmacology (2004), 65(4), 868-879 SOURCE:

CODEN: MOPMA3; ISSN: 0026-895X

PUBLISHER: American Society for Pharmacology and Experimental

Therapeutics

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:16889

Human C5a is a plasma protein with potent chemoattractant and pro-inflammatory properties, and its overexpression correlates with severity of inflammatory diseases. C5a binds to its G protein-coupled receptor (C5aR) on polymorphonuclear leukocytes (PMNLs) through a high-affinity helical bundle and a low-affinity C terminus, the latter being solely responsible for receptor activation. Potent and selective C5a antagonists are predicted to be effective anti-inflammatory drugs, but no pharmacophore for small mol. antagonists has yet been developed, and it would significantly aid drug design. We have hypothesized that a turn conformation is important for activity of the C terminus of C5a and herein report small cyclic peptides that are stable turn mimics with potent antagonism at C5aR on human PMNLs. A comparison of solution structures for the C terminus of C5a, small acyclic peptide ligands, and cyclic

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Harkin, Denis W.; Lindsay, Thomas F.; Taylor,
INVENTOR(S):
                            Steven
                            The University of Queensland, Australia
PATENT ASSIGNEE(S):
                            PCT Int. Appl., 59 pp.
SOURCE:
                            CODEN: PIXXD2
DOCUMENT TYPE:
                            Patent
                            English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
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                                    DATE
                                                 APPLICATION NO.
                                                                           DATE
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                                              WO 2004-AU642
                            A1 · 20041125
                                                                           20040514
     WO 2004100975
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              GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
              NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
              TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
          RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
              SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
              SN, TD, TG
     AU 2004238089
                             A1
                                    20041125
                                                 AU 2004-238089
                                                                            20040514
                                  .20060322
                                               EP 2004-732886
     EP 1635857
                             A1
                                                                           20040514
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
                                                  AU 2003-902354
                                                                        A 20030515
PRIORITY APPLN. INFO.:
                                                  WO 2004-AU642
                                                                        W 20040514
OTHER SOURCE(S):
                            MARPAT 141:420440
     The invention discloses methods for treatment of hemorrhagic shock, and
      especially to treatment of this condition with cyclic peptidic and
     peptidomimetic compds. which have the ability to act as antagonists of the
      C5a receptor. In one embodiment, the compds. are active against C5a
      receptors on polymorphonuclear leukocytes and macrophages. Particularly
      preferred compds. for use in the invention are disclosed.
                                   THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                            8
                                   RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L26 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
                            2004:533081 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                            141:235998
                            Comparative anti-inflammatory activities of
TITLE:
                            antagonists to C3a and C5a receptors in a rat model of
                            intestinal ischaemia/reperfusion injury
AUTHOR (S):
                            Proctor, Lavinia M.; Arumugam, Thiruma V.; Shiels,
                            Ian; Reid, Robert C.; Fairlie, David P.;
                            Taylor, Stephen M.
                            School of Biomedical Sciences, University of
CORPORATE SOURCE:
                            Queensland, Brisbane, 4072, Australia
                            British Journal of Pharmacology (2004), 142(4),
SOURCE:
                            756-764
                            CODEN: BJPCBM; ISSN: 0007-1188
                            Nature Publishing Group
PUBLISHER:
                            Journal
DOCUMENT TYPE:
                            English
LANGUAGE:
```

Complement activation is implicated in the pathogenesis of intestinal ischemia-reperfusion injury (I/R), although the relative importance of individual complement components is unclear. A C3a receptor antagonist

RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

AU 2004-901652

A 20040326

OTHER SOURCE(S):

MARPAT 143:360125

This invention relates to the treatment of neurol. conditions with novel cyclic peptidic and peptidomimetic compds. which have the ability to modulate the activity of C5a receptors. The compds. preferably act as antagonists of the C5a receptor, and are active against C5a receptors on polymorphonuclear leukocytes, monocytes, lymphocytes and/or macrophages. In a preferred form of the invention the neurol. conditions are neurodegenerative diseases, neuroimmunol disorders, diseases arising from dysfunction of the blood brain barrier, and stroke.

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS. REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:237352 CAPLUS

DOCUMENT NUMBER:

142:423355

TITLE:

A potent and selective inhibitor of group IIa secretory phospholipase A2 protects rats from

TNBS-induced colitis

AUTHOR(S):

Woodruff, Trent M.; Arumugam, Thiruma V.;

Shiels, Ian A.; Newman, Michelle L.; Ross, Paul A.;

Reid, Robert C.; Fairlie, David P.; Taylor,

Stephen M.

CORPORATE SOURCE:

School of Biomedical Sciences, Department of

Physiology & Pharmacology, University of Queensland,

Brisbane, QLD 4072, Australia

SOURCE:

International Immunopharmacology (2005), 5(5), 883-892

CODEN: IINMBA; ISSN: 1567-5769

PUBLISHER:

Elsevier B.V.

DOCUMENT TYPE:

Journal English

LANGUAGE: Secretory phospholipase A2 (sPLA2) enzymes have been implicated in the pathogenesis of human inflammatory bowel disease (IBD). In this study we compared the efficacy of a potent, new and highly selective inhibitor of group IIa human sPLA2 enzyme (5-(4-benzyloxyphenyl)-4S-(7phenylheptanoylamino)-pentanoic acid; sPLA2I), with that of sulfasalazine, in a rat model of trinitrobenzene sulfonic acid (TNBS)-induced colitis. Following a single oral dose of sPLA2I (5 mg/kg), pharmacoactive levels of drug were detected in the serum within 15 min and for up to 24 h by liquid chromatog. mass spectrometry anal. Rats treated with sPLA2I (5 mg/kg/day) prior to induction of colitis were significantly healthier than TNBS-alone rats, as shown by reduced mortality, improved food intake and increased body weight, and significantly reduced colon myeloperoxidase levels, edema, tumor necrosis factor- $\alpha$  levels, and colon macroscopic pathol. scores after 8 days. Rats pretreated with sulfasalazine (100 mg/kg/day) also had reduced disease expression markers similar to the sPLA2I, but exhibited no improvement in colon edema. This study supports a role for the group IIa sPLA2 enzyme in pathol. associated with the TNBS rat model of IBD, and suggests a possible therapeutic application for selective inhibitors of group IIa sPLA2 inhibitors in the treatment of IBD.

REFERENCE COUNT:

THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS 33 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:1015896 CAPLUS

DOCUMENT NUMBER:

141:420440

TITLE:

Treatment of hemorrhagic shock using complement 5a

receptor inhibitors

CORPORATE SOURCE:

School of Biomedical Sciences, University of

Queensland, St. Lucia, 4072, Australia

SOURCE:

Expert Opinion on Therapeutic Patents (2006), 16(4),

445-458

CODEN: EOTPEG; ISSN: 1354-3776

PUBLISHER: DOCUMENT TYPE: Ashley Publications Ltd. Journal; General Review

LANGUAGE:

English

Complement factor 5a (C5a) is formed upon complement system A review. activation in response to infection, injury, or disease. While C5a is a potent mediator of immune and inflammatory processes, excessive production or inadequate regulation of C5a has been implicated in the pathogenesis of. numerous immuno-inflammatory diseases, predominantly through exptl. studies utilizing animal models of disease. Both acute and chronic conditions may benefit from C5a inhibition, including rheumatoid arthritis, inflammatory bowel disease, asthma, psoriasis, hemorrhagic shock, and neurodegenerative conditions. The potentially broad clin. application for treatments that inhibit the activity of C5a at C5a receptors and the large global market for anti-inflammatory therapeutics have made C5a and the C5a receptor attractive targets for academic and com. drug development programs. In the past 5 years, interest in C5a as a drug target has grown substantially, and this activity has resulted in a collection of patents and scientific papers reporting novel C5a and C5a receptor inhibitors and antagonists, and generated a secondary stream of patent applications broadly claiming the use of C5/C5a inhibitors as a method of treating various immune and inflammatory conditions. reviews the physiol. and pathophysiol. of C5a and discuss the development of C5a and C5a receptor inhibitors in light of the recent scientific and

REFERENCE COUNT:

patent literature.

152 THERE ARE 152 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:1075648 CAPLUS

DOCUMENT NUMBER:

143:360125

TITLE:

Treatment of neurological conditions using complement

C5A receptor modulators

INVENTOR(S):

Woodruff, Trent Martin; Taylor, Stephen

Maxwell

PATENT ASSIGNEE(S):

Promics Pty. Limited, Australia

SOURCE:

PCT Int. Appl., 65 pp.

CODEN: PIXXD2
Patent

DOCUMENT TYPE:

English

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.			D DA	ΤE		APPLICATION NO.					DATE				
WO 2005092366		A1	A1 20051006		1	WO 2005-AU403					20050321				
W: AE	AG, A	AL, AM,	AT, A	U, AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,		
CN	co, c	CR, CU,	CZ, D	E, DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,		
GE	GH, C	SM, HR,	HU, I	D, IL,	IN,	IS,	JP,	KE,	KG,	ΚP,	KR,	KZ,	LC,		
LK	LR, I	LS, LT,	LU, L	V, MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,		
ИО	NZ, C	OM, PG,	PH, P	L, PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,		
SY	TJ, T	rm, Tn,	TR, T	T, TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw	
RW: BW	GH, G	GM, KE,	LS, M	W, MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,		
AZ	BY, F	KG, KZ,	MD, R	U, TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,		
EE	ES, E	FI, FR,	GB, G	R, HU,	ΙE,	IS,	IT,	LT,	LU,	MC,	ΝL,	PL,	PT,		

$$\begin{array}{c|c} & \text{NH} \\ & \text{H}_2\text{N-C-NH-(CH}_2)_3 \\ & \text{O} \\ & \text{H} \\ & \text{O} \\ & \text{NH} \\ & \text{O} \\ & \text{NH} \\ & \text{O} \\ & \text{NH} \\ & \text{O} \\ & \text{NH-C-CH}_2\text{-Ph} \\ & \text{O} \\ & \text{CH}_2\text{-CH}_2\text{-SMe} \\ \end{array}$$

RN219639-79-9 CAPLUS

D-Arginine, N-acetyl-L-phenylalanyl-L-lysyl-L-lysyl-3-cyclohexyl-D-alanyl-CNL-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH} \\ & \text{H}_2\text{N}-\text{C}-\text{NH}-\text{(CH}_2)_3} \\ & \text{O} \\ & \text{H} \\ & \text{O} \\ & \text{NH} \\ & \text{O} \\ & \text{NH} \\ & \text{O} \\ & \text{NH}-\text{C}-\text{CH}-\text{CH}_2-\text{Ph} \\ & \text{CH}_2 \\ & \text{CH}_2 \\ & \text{O} \\ & \text{CH}_2 \\ & \text{NH}-\text{C} \\ & \text{CH}_2-\text{Ph} \\ & \text{CH}_2 \\ & \text{NH}-\text{C} \\ & \text{CH}_2 \\ & \text{NH}-\text{C} \\ & \text{CH}_2-\text{Ph} \\ & \text{CH}_2 \\ & \text{NH}-\text{C} \\ & \text{CH}_2 \\ & \text{CH}_2$$

REFERENCE COUNT:

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS 14 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

2006:287477 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER:

144:424981 -

TITLE: AUTHOR(S): Recent developments in C5/C5a inhibitors Proctor, Lavinia M.; Woodruff, Trent M.;

Taylor, Stephen M.

```
and therapeutic use)
     Shock (circulatory collapse)
IT
        (septic; cyclic peptidic and nonpeptidic agonists and antagonists of
        C5a receptors and G protein-coupled receptors, and
        therapeutic use)
     Lupus erythematosus
IT
        (systemic; cyclic peptidic and nonpeptidic agonists and antagonists of
        C5a receptors and G protein-coupled receptors, and
        therapeutic use)
                    219639-70-0P
     144554-94-9P
IT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU.
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (cyclic peptidic and nonpeptidic agonists and antagonists of C5a
        receptors and G protein-coupled receptors, and
        therapeutic use)
                                   212054-79-0P
                                                 219639-69-7P
                    211937-01-8P
     211937-00-7P
IT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (cyclic peptidic and nonpeptidic agonists and antagonists of C5a
        receptors and G protein-coupled receptors, and
        therapeutic use)
                                               177792-89-1
                                                              219639-68-6
                   157952-15-3
                                 157952-23-3
IT
     133009-92-4
                   219639-72-2
                                 219639-73-3
                                               219639-74-4
                                                             219639-75-5
     219639-71-1
                   219639-77-7 219639-78-8 219639-79-9
     219639-76-6
                                 219639-82-4
                                               219639-83-5
                                                              219639-85-7
                   219639-81-3
     219639-80-2
                   219639-89-1
     219639-88-0
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (cyclic peptidic and nonpeptidic agonists and antagonists of C5a
        receptors and G protein-coupled receptors, and
        therapeutic use)
     80295-54-1, Complement C5a
IT
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (cyclic peptidic and nonpeptidic agonists and antagonists of C5a
        receptors and G protein-coupled receptors, and
        therapeutic use)
     219639-78-8 219639-79-9
TT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
        (cyclic peptidic and nonpeptidic agonists and antagonists of C5a
        receptors and G protein-coupled receptors, and
        therapeutic use)
     219639-78-8 CAPLUS
RN
     D-Arginine, N-acetyl-L-phenylalanyl-L-lysyl-L-methionyl-3-cyclohexyl-D-
CN
     alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)
```

```
receptors, and therapeutic use)
     Anti-Alzheimer's agents
     Anti-inflammatory agents
     Anti-ischemic agents
     Antirheumatic agents
     Drug delivery systems
     Molecular modeling
     Multiple sclerosis
     Psoriasis
     Structure-activity relationship
     Transplant rejection
        (cyclic peptidic and nonpeptidic agonists and antagonists of C5a
        receptors and G protein-coupled receptors, and
        therapeutic use)
     Lipopolysaccharides
IT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); BIOL (Biological study)
        (cyclic peptidic and nonpeptidic agonists and antagonists of C5a
        receptors and G protein-coupled receptors, and
        therapeutic use)
     Peptides, biological studies
IT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (cyclic peptidic and nonpeptidic agonists and antagonists of C5a
        receptors and {\bf G} {\bf protein}\text{-}{\bf coupled} receptors, and
        therapeutic use)
TT
     G protein-coupled receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (cyclic peptidic and nonpeptidic agonists and antagonists of C5a
        receptors and G protein-coupled receptors, and
        therapeutic use)
     Peptides, biological studies
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (cyclic; cyclic peptidic and nonpeptidic agonists and antagonists of
        C5a receptors and G protein-coupled receptors, and
        therapeutic use)
IT
     Dialysis
        (extracorporeal post-dialysis syndrome; cyclic peptidic and nonpeptidic
        agonists and antagonists of C5a receptors and G
        protein-coupled receptors, and therapeutic use)
TT
     Gingiva
        (gingivitis; cyclic peptidic and nonpeptidic agonists and antagonists
        of C5a receptors and G protein-coupled receptors,
        and therapeutic use)
IT
     Lung, disease
     Reperfusion
        (injury; cyclic peptidic and nonpeptidic agonists and antagonists of
        C5a receptors and G protein-coupled receptors, and
        therapeutic use)
     Heart, disease
IT
        (ischemia; cyclic peptidic and nonpeptidic agonists and antagonists of
        C5a receptors and G protein-coupled receptors, and
        therapeutic use)
IT
     Agranulocytosis
        (neutropenia; cyclic peptidic and nonpeptidic agonists and antagonists
```

of C5a receptors and G protein-coupled receptors,

L13 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 1999:34926 CAPLUS DOCUMENT NUMBER: 130:105315 Cyclic agonists and antagonists of C5a receptors and TITLE: G protein-coupled receptors Fairlie, David; Taylor, Stephen Maxwell; Finch, Angela INVENTOR(S): Monique; Wong, Allan The University of Queensland, Australia PATENT ASSIGNEE(S): PCT Int. Appl., 80 pp. SOURCE: CODEN: PIXXD2 Patent DOCUMENT TYPE: English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: DATE PATENT NO. KIND DATE APPLICATION NO. ------\_\_\_\_\_\_ ---------------19990107 WO 1998-AU490 WO 9900406 A1 19980625 W: AU, JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE 19990119 AU 1998-80926 AU 9880926 19980625 A1 B2 AU 744991 20020307 EP 1017713 A1 20000712 EP 1998-930536 19980625 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI JP 2002508767 T2 20020319 . JP 1999-505154 19980625 US 2000-446109 20041123 US 6821950 В1 20000421 A 19970625 PRIORITY APPLN. INFO.: AU 1997-7550 WO 1998-AU490 W 19980625 MARPAT 130:105315 OTHER SOURCE(S): Entered STN: 19 Jan 1999 ED Cyclic compds. are provided which have the ability to modulate the AB activity of G protein-coupled receptors. The invention provides both agonists and antagonists. In preferred embodiments, the invention provides cyclic peptidic and cyclic or non-cyclic non-peptidic antagonists or agonists of C5a. The compds. of the invention are both potent and selective, and are useful in the treatment of conditions mediated by G protein-coupled receptors, especially conditions mediated by overexpression or underregulation of C5a, such as a variety of inflammatory conditions. IC ICM C07K007-06 ICS C07K007-64; A61K038-08 CC 1-7 (Pharmacology) Section cross-reference(s): 63 cyclic agonist antagonist G protein coupled receptor; STC5a receptor cyclic agonist antagonist; peptide cyclic agonist antagonist C5a receptor; antiinflammatory C5a receptor cyclic agonist antagonist ΙT Complement receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (C5a; cyclic peptidic and nonpeptidic agonists and antagonists of C5a receptors and G protein-coupled receptors, and therapeutic use) Respiratory distress syndrome TТ (adult; cyclic peptidic and nonpeptidic agonists and antagonists of C5a receptors and G protein-coupled receptors, and therapeutic use) ITAntiarteriosclerotics

(antiatherosclerotics; cyclic peptidic and nonpeptidic agonists and

antagonists of C5a receptors and G protein-coupled

350850-77-0 350850-79-2 350850-81-6 350850-83-8 350850-85-0 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (melanin-concentrating hormone-related peptide ligand structure-activity

relationships at human melanin-concentrating hormone receptor SLC-1)

IT 350849-88-6

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(melanin-concentrating hormone-related peptide ligand structure-activity relationships at human melanin-concentrating hormone receptor SLC-1)

RN 350849-88-6 CAPLUS

CN L-Tryptophan, L-arginyl-L-ornithyl-L-arginyl-L-phenylalanyl-L-arginyl-L- $\gamma$ -glutamyl-, (6 $\rightarrow$ 2)-lactam (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

$$(CH_2)_3$$
 $NH_2$ 
 $NH$ 

REFERENCE COUNT:

57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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514814-87-0P
                    514814-88-1P
                                   514814-89-2P
                                                  514814-91-6P
                                                                 514814-92-7P
     514814-93-8P
                    514814-94-9P
                                   514814-95-0P
                                                  514814-96-1P
                                                                 514814-97-2P
     514814-98-3P
     RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
                               514814-70-1 514814-78-9
     514814-55-2
                   514814-69-8
     514814-79-0
                   514814-99-4
     RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic
     use); BIOL (Biological study); USES (Uses)
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     514815-01-1 514815-02-2 514815-04-4
     RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     514815-00-0P 514815-03-3P
     RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
TT
     514814-39-2P 514814-40-5P 514814-41-6P
                                                                 514814-50-7P
                                                514814-48-3P
     514814-53-0P 514814-56-3P
                               514814-59-6P
                                              514814-61-0P
     514814-64-3P 514814-82-5P
                                  514814-90-5P
     RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
IT
     514814-52-9P 514814-54-1P
     RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (cyclic peptides and peptidomimetic compds. as G
        protein-coupled receptor antagonists, and therapeutic use)
RN
     514814-52-9 CAPLUS
     L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-valyl-3-cyclohexyl-D-
CN
     alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)
```

RN 514814-54-1 CAPLUS

CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-phenylalanyl-3-cyclohexyl-D-alanyl-L-tryptophyl-,  $(6\rightarrow 2)$ -lactam (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH} \\ & \text{H}_2\text{N}-\text{C}-\text{NH}-\text{(CH}_2)_3} \\ & \text{O} & \text{O} & \text{H} \\ & \text{N} & \text{O} & \text{NHAC} \\ & \text{HN} & \text{H} & \text{N} & \text{O} & \text{NHAC} \\ & \text{O} & \text{CH}_2 & \text{R} & \text{O} \\ \end{array}$$

IT 514814-55-2

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (cyclic peptides and peptidomimetic compds. as G

protein-coupled receptor antagonists, and therapeutic use)

RN 514814-55-2 CAPLUS

CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-D-phenylalanyl-3-cyclohexyl-D-alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

IT 514814-53-0P 514814-56-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (cyclic peptides and peptidomimetic compds. as G

protein-coupled receptor antagonists, and therapeutic use)

RN 514814-53-0 CAPLUS

CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-L-isoleucyl-3-cyclohexyl-D-alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

RN 514814-56-3 CAPLUS

CN L-Arginine, N-acetyl-L-phenylalanyl-L-ornithyl-3-cyclohexyl-L-alanyl-3-cyclohexyl-D-alanyl-L-tryptophyl-, (6→2)-lactam (9CI) (CA INDEX NAME)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:329752 CAPLUS

DOCUMENT NUMBER: 135:117301

TITLE: Structure-activity relationship studies of

melanin-concentrating hormone (MCH) -related peptide

ligands at SLC-1, the human MCH receptor

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Chantal; Suply, Thomas; Rodriguez, Marianne; Ouvry, Christine; Lamamy, Veronique; Imbert, Jerome; Rique, Herve; Nahon, Jean-Louis; Galizzi, Jean-Pierre; Canet, Emmanuel; Levens, Nigel; Fauchere, Jean-Luc; Boutin, Division de Pharmacologie Moleculaire et Cellulaire, CORPORATE SOURCE: Institut de Recherches SERVIER, Croissy sur Seine, 78290, Fr. Journal of Biological Chemistry (2001), 276(17), 13554-13562 CODEN: JBCHA3; ISSN: 0021-9258 American Society for Biochemistry and Molecular PUBLISHER: Biology Journal DOCUMENT TYPE: English LANGUAGE: Entered STN: 09 May 2001 Melanin-concentrating hormone (MCH) is a cyclic nonadecapeptide involved in the regulation of feeding behavior, which acts through a G protein-coupled receptor (SLC-1) inhibiting adenyl cyclase activity. In this study, 57 analogs of MCH were investigated on the recently cloned human MCH receptor stably expressed in HEK293 cells, on both the inhibition of forskolin-stimulated cAMP production and guanosine-5'-0-3-[35S]thiotriphosphate ([35S]GTPyS) binding. The dodecapeptide MCH-(6-17) (MCH ring between Cys7 and Cys16, with a single extra amino acid at the N terminus (Arg6) and at the C terminus (Trp17)) was found to be the minimal sequence required for a full and potent agonistic response on cAMP formation and [35S]GTPyS binding. We Ala-scanned this dodecapeptide and found that only 3 of 8 amino acids of the ring, namely Met8, Arg11, and Tyr13, were essential to elicit full and potent responses in both tests. Deletions inside the ring led either to inactivity or to poor antagonists with potencies in the micromolar range. Cys7 and Cys16 were substituted by Asp and Lys or one of their analogs, in an attempt to replace the disulfide bridge by an amide bond. However, those modifications were deleterious for agonistic activity. In [358]GTP $\gamma$ S binding, these compds. behaved as weak antagonists (KB 1-4  $\mu\text{M}$ ). Finally, substitution in MCH-(6-17) of 6 out of 12 amino acids by non-natural residues and concomitant replacement of the disulfide bond by an amide bond led to three compds. with potent antagonistic properties (KB = 0.1-0.2  $\mu M$ ). Exploitation of these structure-activity relationships should open the way to the design of short and stable MCH peptide antagonists. 2-2 (Mammalian Hormones) G protein-coupled receptors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (SLC-1; melanin-concentrating hormone-related peptide ligand structure-activity relationships at human melanin-concentrating hormone receptor SLC-1) 87218-84-6, Melanin-concentrating hormone (Oncorhynchus keta) 128315-56-0, Melanin-concentrating hormone (human) 160201-86-5 350849-85-3 350849-86-4 350849-87-5 350849-84-2 350849-83-1 350849-90-0 350849-91-1 350849-89-7 350849-88-6 350849-95-5 350849-97-7 350849-99-9 350850-01-0 350849-93-3 350850-07-6 350850-09-8 350850-11-2 350850-05-4 350850-03-2 350850-17-8 350850-15-6 350850-19-0 350850-21-4 350850-13-4

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